

PRESENTING THE AUSTRALIAN PLANT DISEASE RECORDER:

For some considerable time, the need for an informal publication to serve primarily as a contact medium for plant pathologists throughout the Commonwealth has been felt. It is hoped that the Australian Plant Disease Recorder will, in some small measure, supply that need.

Although, as already indicated, the primary purpose of the Recorder is to bring Australian pathologists into closer and more personal contact - thereby partially compensating for the large distances separating phytopathological centres in this country, the lack of frequent conferences and the rarity of interstate visits - the publication should be of value in other directions.

It represents, for instance, a convenient and suitable recording medium for observations of value which might otherwise go unrecorded for years or perhaps never be published. It can, and should, assist in achieving a degree of uniformity in the formulation of plant quarantine regulations and in the adoption of a standardised system of nomenclature of plant pathogens. It could pave the way for the development of a long overdue Australian check list.

There is also the possibility that the Recorder will, in time, assist in the inauguration of an Australian Phytopathological Society. It certainly will be of value to the Official Correspondent of the Commonwealth Mycological Institute in carrying out the duties of his appointment.

The Recorder aims, for the most part, to publish articles of the brief but informative type, whilst its informal nature is designed to encourage the free expression of views and opinions. The feeling that the inclusion of overseas institutions and reviewing journals on the mailing list would restrict this highly desirable freedom of expression has led to a decision to confine distribution of the publication, initially, to the Commonwealth.

In connection with articles, it is pointed out that certain scientific publishing societies may refuse to publish matter that has appeared in abbreviated form elsewhere. Contributors are therefore warned of the possibility of an article published in the Recorder losing its value as an original contribution to some other scientific journal. However, if discretion is exercised by contributors, this should not introduce any unnecessary complications.

Finally, it is emphasised how entirely dependent this publication is upon the active support of fellow pathologists for its ultimate success. The response to the request for articles for the first issue has been most gratifying - if this support continues, the Australian Plant Disease Recorder should

soon establish itself as a worthwhile publication and a valuable service to colleagues throughout the Commonwealth.

- F. C. BUTLER.

STEM RUST REACTIONS OF AUSTRALIAN WHEATS IN CALIFORNIA:

A report from Dr. E.P. Baker states that a heavy stem rust attack developed in the wheat yield tests at Davis, California. Of the Australian varieties under test, Charter and Gabo were rated as having 1+ type of resistance, whilst Yalta and Kendee were classified as 2-. All were considered to be satisfactory in resistance. The races present were 17 and 56. The latter has been found in Australia and is known to arise as a segregate from race 34 infections of the barberry, but race 17 has not shown up here.

- W.L. WATERHOUSE.

DOWNY MILDEW OF WHEAT:

Rusted wheat forwarded from Curlewis and Leeton this season showed marked distortion of the heads. This was found to be due to attack by Sclerospora macrospora. Other work which is about to be published shows that attack of a stem rust resistant variety by this pathogen renders that variety susceptible to Puccinia graminis tritici.

- W.L. WATERHOUSE.

FOOT ROT OF WHEAT:

Foot rot (Helminthosporium sativum) was more prevalent in the Western Australian wheat belt this season than for many years past. During October and November specimens showing "white-head" symptoms were received from various districts, and in most cases foot rot was associated with the trouble. Predisposing factors appeared to be frost injury, the very dry September weather and possibly, in some instances, the occurrence of minor element deficiencies.

- W.P. CASS SMITH.

LEAF RUST ON DACTYLIS GLOMERATA:

Mr. J.C. Skinner has come across plants of Dactylis glomerata at Grafton heavily attacked by a leaf rust. Only the uredospore stage has been found. The rust does not attack the

cereals and at present no record of its occurrence elsewhere has been found. Certain selections of cocksfoot have been unattacked, whilst others treated in the same way have been quite susceptible in plant house tests.

- W.L. WATERHOUSE.

STEM RUST AND HEAD SMUT OF AMPHIBROMUS NEESII:

Plants of Amphibromus Neesii attacked by stem rust and head smut were collected by Dr. I.A. Watson at Bribbaree. Last year there was a similar occurrence at Tichborne, in the Parkes district. The rust in each case confirmed many previous determinations that it is Puccinia graminis avenae. No record has been found of the occurrence of a head smut on this host. Efforts throughout 1948 to get the spores to germinate all failed, and until success is had, the determination of the smut involved cannot be made.

- W.L. WATERHOUSE.

BUNT OF BARLEY GRASS:

Barley grass bunt collected by Dr. I.A. Watson has been used in further studies. Using germinating chlamydospores to inoculate seed, attempts have been continued to determine its host range on Hordeum spp. Initial germinations are sporadic, and failure has been met again this season in efforts to obtain infections of H. leporinum, its normal host.

- W.L. WATERHOUSE.

THE GERMINATION OF SPRUNG AND SHOT SEED WHEAT:

A large percentage of the wheat grain harvested in N.S.W. during the 1947-48 season was badly weather-damaged. As a result, many farmers were obliged to use sprung and/or shot grain for seed wheat purposes.

In an endeavour to obtain information on its value as seed wheat, laboratory and field germination studies were made of untreated, Ceresan treated and copper carbonate treated samples of (a) sprung and (b) shot grain.

Seed showing a development of both radicle and plumule was classified as shot, whilst seed with the "skin" covering the embryo split, but not sufficiently to expose the radicle and plumule, was classified as sprung. The seed used in both laboratory and field tests was selected from composite samples

of grain collected in the southern, north-western and central-western areas of the N.S.W. wheat belt.

I am indebted to Miss Amy Myers, Seeds Officer, N.S.W. Department of Agriculture, for the following laboratory germination figures:-

Germination per cent. in 7 days of:-	Sprung Wheat			Shot Wheat		
	(a)	(b)	(c)	(a)	(b)	(c)
From South	80	84	82	81	85	65
From West	82	84	81	82	85	42
From North-West	80	88	81	63	65	56

(a) Untreated seed; (b) Ceresan dusted; (c) Copper carbonate dusted.

Miss Myers' comments on these figures, taken from her article in the N.S.W. Agricultural Gazette, 59 : 2 : 59-61, 1948, are as follows:

"It will be seen that sprung seed untreated gave an average germination of 81 per cent., whilst untreated shot seed gave an average germination of only 76 per cent.

Treatment with Ceresan slightly improved germination with both classes of seed - to 85 and 78 per cent., respectively.

Treatment with copper carbonate did not affect germination of the sprung seed (average 81 per cent.), but reduced germination of the shot seed to 54 per cent."

The field germination studies were conducted at Wagga Experiment Farm where duplicate samples of sprung and shot seed, again from southern, western and north-western N.S.W., were sown, one day and one month after treatment with Ceresan and copper carbonate.

From a statistical examination of the results by the Departmental Biometrician, Mr. F.C. McCleery, the following conclusions were drawn:-

Sprung grain from all three portions of the wheat belt, whether untreated or dusted, germinated significantly better than shot grain.

Ceresan treated grain gave the highest over-all germination and also the highest germination in every case when

the figures are broken down into North, South and West, and into shot and sprung grain classes.

Ceresan treated grain gave a higher germination than either untreated or copper carbonate treated grain at the first time of sowing (one day after treatment). This difference was due principally to its improvement of the germination of shot and sprung seed. At the second time of sowing (one month after treatment) the untreated seed gave a higher germination than either the Ceresan or copper carbonate dusted grain.

It is of interest to note that germination of Ceresan treated seed was significantly higher when planted at once than when planting was delayed for a month after treatment.

- F.C. BUTLER.

BLIND SEED DISEASE OF RYE GRASS:

Last season several samples of rye grass examined by the Seed Testing Laboratory showed abnormally low germination. Material was submitted to the Plant Pathologist, who found that the cause of the trouble was infection with the fungus, Phialea temulenta. This disease had not previously been recorded in Tasmania.

Fields which produced infected seed were examined during early December, and apothecia of the fungus were found growing from infected seed on the ground beneath rye grass plants. The life history of the fungus in Tasmania is therefore the same as that reported in New Zealand and elsewhere. It was noted that apothecia could only be found in low-lying, wet areas of the paddocks. They were not abundant, and little sign of infection was noted on the young heads, so it is hoped that the disease will cause less trouble than last year.

- G.C. WADE.

BOIL SMUT OF PANICUM CYMBIFORME:

A boil smut on Panicum cymbiforme has been collected by Mr. Langfield at Wyndham, W.A., and forwarded by Mr. C.S. Christian of C.S.I.R. It resembles Cintractia crus-galli, but further work is required before a determination can be given.

- W.L. WATERHOUSE.

RUST ON WALSH LINSEED:

Melampsora lini has been sent in on Walsh linseed collected in various localities. The attack on these plants has not been severe and results are not yet available to show whether true Walsh plants were involved. Rust race determinations are incomplete. (Walsh has hitherto been regarded as rust resistant in N.S.W.).

- W.L. WATERHOUSE.

PASMO DISEASE OF LINSEED:

Pasmo (Septoria linicola (Speg.) Garassini) was recorded on linseed for the first time in N.S.W. in October, 1948. The variety involved was Walsh and the outbreak occurred in the Walla Walla district in the southern part of the State. Infection was severe, stems, leaves and bolls being affected. It is presumed that the outbreak was initiated by wind-disseminated spores from Victoria, where the disease has been present since 1940.

- R.J. CONROY.

RUST OF DWARF FRENCH BEANS:

Rust (Uromyces phaseoli typica Arth. = U. appendiculatus (Pers.) Fr.) of beans of the botanical species Phaseolus vulgaris has long been a serious disease in New South Wales on certain climbing varieties such as Epicure and Kentucky Wonder. It has also been observed on some of the navy and field bean types, but the main dwarf French bean varieties - Brown Beauty, Hawkesbury Wonder, Tweed Wonder, Wellington Wonder and Canadian Wonder - have, except under conditions very favourable for rust, been free from the disease. In wet seasons and in shaded positions, a few rust pustules have occasionally been observed on the leaves of these dwarf varieties. It has been assumed that there were no races of the bean rust fungus in this country capable of causing serious damage to our main varieties of dwarf French beans and, for practical purposes, such varieties have been classed as resistant.

During October, 1948, a rust-affected crop of Tweed Wonder beans at Berkeley Vale in the Gosford-Wyong district was seen by the writer. There were many pustules on each leaflet, whilst some of the pods were also showing rust pustules. Small patches of infected plants occurred in the crop, indicating a few infection centres from which the disease had spread. Weather conditions had been fairly dry for some weeks and the severity of the infection under the environmental conditions

prevailing suggested that a race of the bean rust fungus, different from that which has been present on Epicure and other climbing varieties, was responsible. Subsequently, the grower reported that the disease had spread throughout the entire planting of about three acres, but had not been observed in later planted crops on other parts of his farm.

Specimens of affected plants were submitted to Professor W.L. Waterhouse, who has found that, using the American standard set of differential varieties, the rust would be classified as race 17. In determination of the rust it is of interest to note, however, that whilst the Tweed Wonder variety is susceptible to the Berkeley Vale strain, it shows a resistant reaction to the "standard" race 17.

The permanent establishment here of a new race of bean rust capable of attacking our dwarf French bean varieties might necessitate routine dusting with sulphur, or some other fungicidal treatment, in order to obtain effective control of the disease. Such measures, which are apparently necessary in some of the south-eastern States of the United States, would add considerably to the costs of production.

- R.D. WILSON.

RUST OF DWARF FRENCH BEANS:

Heavily rusted plants of "Tweed Wonder" bean collected at Berkeley Vale by Mr. R.D. Wilson have been tested on the U.S.A. set of bean differential varieties. This determination shows that race 17 is the rust present. In determinations of bean rust during the past 6 years, this race and race 2 are the only ones that have been found. When the "Tweed Wonder" isolate is compared with the "standard" race 17, a marked difference is found. Whilst the former gives a susceptible, the latter gives a resistant reaction on the variety Tweed Wonder.

- W.L. WATERHOUSE.

LETTUCE MOSAIC:

This disease was recently observed in a crop of Imperial lettuce in the Launceston district of Tasmania. The crop showed about 90% infection with the disease, and infected plants showed marked vein clearing, puckering of leaves and failure to heart properly. A considerable proportion of the crop was not marketed because of the disease.

- G.C. WADE.

IRISH BLIGHT OF POTATOES:

This disease seldom occurs in epidemic form in Western Australia, although it is often present in trace amounts in late spring and early summer, in the relatively small potato-growing areas closely adjacent to Perth.

During October and early November, 1948, exceptionally favourable weather for disease development occurred and a serious outbreak threatened. This was largely averted by advisory surveys, and the prompt application of recommended control measures. Where the latter were neglected, however, serious crop losses occurred. It was estimated that, out of a total of 88 acres under crop, 67 were affected with the disease, and the over-all reduction in yield approximated to 5%.

- W.P. CASS SMITH.

TOMATO SPOTTED WILT:

This disease has been more serious than usual in commercial tomato crops, and losses of up to 50% have been noticed in early plantings.

Good control has been reported from the use of tartar emetic foliage bait. In some instances, plant injury has been attributed to the use of D.D.T. dusts.

- W.P. CASS SMITH.

THE QUEENSLAND STRAWBERRY RUNNER CERTIFICATION SCHEME, 1948:

Regular inspections of a number of strawberry plantings for runner certification prompted the following notes on diseases present in 1948.

The Yellow Edge Virus. During this year and in 1947, the yellow edge virus, while consistently present, was rarely prominent in strawberry plantings. From two years' observations, it appears that the spread of this virus within plantings is not very vigorous. This may be related to the relative inactivity of the vector, Capitophorus fragariae, in the cooler months. Under such conditions - low percentage initial infections and slow subsequent spread - the virtual elimination of yellow edge should be quickly achieved in certified runner plots.

The symptoms of yellow edge are well expressed in June and July in South-East Queensland, and by the second week in August in 1948 infected plants commenced to produce normal

new leaves through the central zone of dwarfed yellow-edged leaves. Inspections for yellow edge should therefore be carried out in June and July.

Strawberry yellow edge symptoms in Queensland are similar to those described by K.M. Smith for *Fragaria Virus 1*, with the additional symptom of small hard fruit with a greenish sheen frequently present in infected plants.

The Crinkle Virus. This virus constitutes a greater hazard than yellow edge. In 1947 crinkle occurred in epidemic proportions in a few plantings, and was generally a conspicuous disease. In 1948, up to 21st October, while the virus was frequently observed in scattered groups of 4 or 5 plants in individual plantings, no epidemic incidences had occurred.

Crinkle may be detected as early as July but its symptoms are best expressed in Queensland between September and January.

The virus is identical with that described by K.M. Smith for *Fragaria Virus 2*.

Virus Complex. Rarely, in July, are foliage symptoms met with which suggest that dual infection with yellow edge and crinkle may occur under field conditions in Queensland.

Stunted Plants. A percentage of dwarf plants is generally present in plantings. These plants make little vegetative growth throughout the year, with proportionate low fruiting, but are free from obvious above-ground pathological symptoms.

This condition has not been investigated. The possibilities are a root infecting fungus, a mild infection with a virus, a plant with a deficient root system from the start, or a horticulturally objectionable type. In any case, their removal from plantings before the runner beds are established is important.

Botrytis Fruit Rot. Botrytis fruit rot every year causes concern. The fruit rot is undoubtedly associated with wet weather, and is possibly aggravated by overhead irrigation at certain times. Very heavy losses were suffered in 1948. It appears important for strawberry growers to recognise early stage infections and to refrain from including them in the packing trays. Fruit showing slight withering of the calyx or a dull greyish spot should be rigorously discarded, together, of course, with berries showing the more obvious and extensive soft rot with the characteristic grey spore masses. A further careful examination before packing, and prompt marketing, should cut losses from this disease.

The disease is sufficiently serious to suggest that some consideration be given to furrow irrigating rather than overhead.

Eye-Spot. Eye spot is casually accepted by nearly all growers. However, the presence of the fungus in crowded runner beds, associated with wet weather, resulted in spindly runners heavily infected with eye spot in 1947. In the 1948 planting when heavily infected runners were planted alongside runners practically free from the disease, a noticeable difference in the early growth occurred. Vigorous thinning out of the beds before the runners begin to form and the continuance of spraying in the runner beds should assist in control.

Insect Pests. Insect attack appeared to be more serious this season than plant disease. Red spider and aphid very quickly exact a toll from the strawberry plant, while the grower is blaming the weather, and ragged unproductive beds, followed by cultural neglect, occur in a very high percentage of cases, particularly in unirrigated plantings.

- T. McKNIGHT.

STRAWBERRY ROOT ROT:

This disease causes considerable losses in Tasmania each year. It is most serious in the Ettersburg variety. The symptoms consist of the sudden wilting and collapse of infected plants, and the absence of a normal development of fibrous roots. Many of the roots show small reddish-brown to black lesions about half-an-inch long.

So far, no one pathogenic fungus has been consistently isolated, but a number of different fungi occur frequently. The most common are Rhizoctonia solani, Cylindrocladium sp. and a species of Pythium. However, no pathogenicity tests have yet been conducted with these organisms, all of which have been found associated with an apparently similar condition in Canada (see Sci. Agric. 28 : 293-308, 1948).

Observations of other pathologists on this trouble would be appreciated.

- G.C. WADE.

ANTHRACNOSE OF RASPBERRY AND LOGANBERRY:

Anthracoese (Elsinoe veneta) causes considerable damage to raspberry and loganberry plantations each season. On raspberries the most serious aspect is the cankers on the canes, which are frequently sufficiently abundant to kill out a

considerable proportion of the fruiting canes. The fungus also attacks the petioles of the fruit, and the fruit itself, resulting in many dried berries. Leaf infection is not usually serious on raspberries.

Loganberries in Tasmania are universally infected with the disease. It causes similar troubles to those described for raspberries, but, in addition, leaf infection is very serious. Many loganberry growers spray against the disease but, as yet, few raspberry growers use any control measures.

- G.C. WADE.

GLOEOSPORIUM RIBIS ON GOOSEBERRY:

This disease has been detected for the first time in Tasmania this season. It causes small black lesions on the leaves, and has not proved of any economic significance. It has not been detected on black or red currants, but Septoria ribis is responsible for considerable premature leaf fall of black currants.

- G.C. WADE.

NEW OR INTERESTING DISEASES OF ORNAMENTALS IN NEW SOUTH WALES.

The weather during the spring and early summer of 1947 was unusually mild and wet in N.S.W., particularly on the coast and tablelands. In consequence, leaf spotting diseases were particularly prevalent. Three of these diseases warrant special mention.

LEAF SCORCH OR RED STRIPE DISEASE:

The fungus Stagonospora curtisii was recorded from a number of localities, causing leaf scorch of daffodils and Clivea miniata and red stripe of Crinum and Hippeastrum. In particular, several large beds of Clivea at the Sydney Botanic Gardens were badly affected and flowered poorly in consequence. The 1948 season has been particularly dry and the disease promises to be of very slight importance. It is quite likely that this disease has been present for some years in N.S.W. and is only noticed when conditions specially favour it.

LEAF SPOT OF NASTURTIUM:

The fungus Heterosporium tropaeoli, Bond, was recorded for the first time in N.S.W., causing very severe leaf injury in a number of Sydney gardens during the spring of 1947. The

fungus was described originally in 1947 as the cause of a disease of Tropaeolum major in Ceylon (Bond, T.E.T., Ceylon J. Sci., Sect. A, XII, p. 185, 1947). The same disease has recently been described by Baker (Phytopath. 37, p. 359, 1947), causing severe damage to nasturtium seed crops in coastal California. Baker found that seeds are rapidly infected as soon as the pericarp becomes senescent and that the pathogen survives at least 3 years in the seed.

SHOT HOLE BLIGHT OF ANTIRRHINUM:

This disease, caused by Heteropatella antirrhini, Wakef and Buddin, was recorded in N.S.W. in 1947 from gardens and commercial crops, killing out large numbers of plants. Favoured by the prevailing weather conditions, the disease activity continued until the drier weather of January, 1948, checked it. In 1948, on the contrary, it has been of very minor importance. White (Tasmanian Dept. Agric. Plant Disease Survey for 1943, 1944, 1945) recorded this disease as being very severe in seed crops in Tasmania and it appears probable that the N.S.W. outbreak originated from infected seed from this source.

- L.R. FRASER.

LIME-INDUCED IRON DEFICIENCY IN HYDRANGEAS:

It is an established practice to attempt to change the flower colour of hydrangeas in home gardens from blue to pink by the use of lime. Severe damage may sometimes result from this treatment. Such an instance is reported here.

In late 1947 four plants in a private garden in Reid, A.C.T., showed severe interveinal chlorosis. The condition became progressively worse from older, almost normal leaves to younger foliage which was completely devoid of chlorophyll and lacking the gloss of normal foliage. Associated with the chlorosis was a necrotic condition, either as isolated or confluent spots, in the distal part of the lamina, involving up to 2/3 of the surface area, and affecting approximately 75 per cent. of leaves.

The pH of the soil in 1947 varied from 7.5 to 8.4. In 1946 a heavy dressing of fowl manure mixed with a large quantity of lime was applied. In this year mild symptoms are reported to have occurred, but the condition did not become serious until late 1947.

The plants responded to a 2½ per cent. ferrous sulphate spray with "Wetsit" as a spreader. Chlorophyll development commenced within seven days, and after three weeks, during which two more sprays were given, new growth was almost

normal, showing only a faint chlorotic mottle. Older affected leaves, though somewhat mottled, showed marked improvement.

The response to sprays and the high pH of the soil confirm the diagnosis of lime-induced iron deficiency.

- J.H.E. MACKAY.

RUST ON LOBELIA CONCOLOR:

Plants of Lobelia concolor R. Br. heavily attacked by an Aecidium were forwarded by Mr. W.R. Watkins from the Leeton Experiment Farm. No record of such a rust has yet been found. Whilst Puccinia graminis was abundant on Avena fatua and Hordeum leporinum intergrown with the Lobelia, no connection is suspected. Observations for the occurrence of uredo- and telento-spore stages to link with the aecidial are required.

- W.L. WATERHOUSE.

LEAF AND STEM SPOT OF EUPHORBIA PEPLUS:

Pathogenicity tests included in the preliminary work on the leaf and stem spot disease of Euphorbia peplus L., caused by a species of Septoria have shown that the other Euphorbia species tested to date have been immune. Seed of E. Esula L. (Leafy spurge) especially, is required to extend the tests and we would be grateful to hear of any source of seed.

- W.L. WATERHOUSE.

NEW DISEASE RECORDS FOR WESTERN AUSTRALIA.

Yellow leaf blister (Taphrina aurea) on Populus nigra var. Italica.

Yellow leaf blotch (Microstroma juglandis) on Juglans regia.

Information concerning the occurrence of these diseases in other States would be of interest.

- W.P. CASS SMITH.

HOT WATER SEED TREATMENTS.

For the disinfection of infected (as distinct from contaminated) seed, hot water treatments are now widely recommended, especially for the control of certain vegetable diseases. Although highly effective when properly carried out, growers are often loth to adopt them as they consider the technique too difficult, and are afraid of injuring the seed. Local experience has been that demonstrations with simple home-made equipment do much to overcome the first objection, and that seed injury is commonly caused by slow drying of the seed rather than by faulty control of temperature, or timing of the steep.

In general, it has been found that quick drying is facilitated and seed injury lessened, often considerably, when the seed is spread out in a thin layer, immediately after the heat steep, instead of first cooling it by plunging in cold water.

Departmental recommendations on this point vary, and it would appear that uniformity is desirable. The idea of uniformity might be extended to embrace other seed treatments also.

- W.P. CASS SMITH.

THE TOXIN OR ANTIBIOTIC SUBSTANCE OF BOTRYTIS CINEREA.

Botrytis cinerea isolated from different sources, when grown on Czapeck's nutrient solution at room temperature for seven up to sixteen days, produced a thermostable substance which caused wilting and death in bean plants immersed in the substrate. An attempt has been made to isolate, purify and identify this toxic substance produced by B. cinerea. Investigations so far indicate that chemically this antibiotic substance is a glycoside and is tentatively named "botrytin."

With increasing concentrations of this relatively purified substance there was a greater rapidity and severity of wilting in bean plants. These preparations also caused browning of tissue in apple cortex and in discs of potato and bean leaves. The authors believe that "botrytin" is the antibiotic substance produced by B. cinerea in infected tissue which causes the killing in advance of penetration phenomenon, and is distinct from the action of the separation of the cells due to pectinase reaction in tissue already killed by the toxin.

- N.H. WHITE and H. SILBERMAN.

COMMONWEALTH MYCOLOGICAL INSTITUTE NOTES.1. CULTURE COLLECTIONS:

At a specialist conference on Culture Collections of Micro-organisms held in London in 1947 it was resolved that culture collections of micro-organisms should be maintained in the United Kingdom, and national or regional collections should be established in different parts of the Commonwealth. It was further decided that the C.M.I. should be responsible for cultures of fungi other than medical fungi and yeasts in the United Kingdom (the timber-rotting fungi have since also been excluded). Soon afterwards the appropriate portion of the culture collection at the Lister Institute was taken over by the C.M.I. The cost of maintenance of this collection has been a problem and it is of interest to report that the U.K. Government has now made a grant of £500 per year towards this, with a promise of more to follow as the collection expands. Has anyone a plan for the establishment of our regional collection?

2. PHYTO-SANITARY INFORMATION CENTRE:

The Phyto-Sanitary Convention held in August last drew up, amongst other things, a draft Phyto-Sanitary Convention which agrees to establish a permanent information centre in London. The British Commonwealth Institutes of Entomology and Mycology and the Scientific Secretary of the permanent commission will co-operate and the functions of the centre, inter alia, shall be to collect and distribute all such information re the status of pests and diseases inside and outside the area covered by the convention, as shall be required by the permanent commission.

The resolution of the conference and draft convention are at present with the Foreign Office. The official report will subsequently be forwarded to the Executive Council of C.A.B., which will duly advise organisations under its control of the action required.

3. WHERE IS AUSTRALIA'S BEST MYCOLOGICAL HERBARIUM?

I have been asked by the Director, C.M.I., to provide information on the relative status of mycological herbaria in Australia. He has been informed that Dr. Stevenson, of the United States Department of Agriculture, has reserved Century 1 of Fischer's exsiccati "graminicolous Smuts of North America" for Australia and has enquired what would be the proper place to which to send the specimens. There is a modest mycological herbarium in the N.S.W. Department of Agriculture and care would be taken of Fischer's exsiccati, but, before replying to Dr. Wiltshire, I would be grateful to learn what other Australian institutions maintain mycological herbaria.

- C.J. MAGEE.

At a certain point in the history of the United States, the government has been in a position to collect and analyze information on the activities of its citizens. This information has been used for a variety of purposes, including the identification of potential threats to national security. The collection of this information has been a controversial issue, with many people arguing that it is a violation of privacy. However, the government has argued that it is necessary for the protection of the nation. This document discusses the history of this information collection and the arguments for and against it.

2. THE HISTORY OF INFORMATION COLLECTION

The history of information collection in the United States can be traced back to the early days of the nation. The government has always been interested in the activities of its citizens, and this interest has grown over time. In the early 20th century, the government began to collect information on the activities of its citizens on a large scale. This was done in order to identify potential threats to national security. The collection of this information has been a controversial issue, with many people arguing that it is a violation of privacy. However, the government has argued that it is necessary for the protection of the nation.

The collection of information on the activities of its citizens has been a controversial issue for many years. Many people argue that it is a violation of privacy, while others argue that it is necessary for the protection of the nation. The government has argued that it is necessary for the protection of the nation, and this argument has been supported by many people. However, the collection of this information has been a controversial issue, and it is likely to remain so for many years to come.

3. THE ARGUMENTS FOR AND AGAINST INFORMATION COLLECTION

The arguments for and against information collection have been a subject of debate for many years. Those who argue in favor of information collection believe that it is necessary for the protection of the nation. They argue that the government has a duty to protect its citizens, and that this duty requires the collection of information on the activities of its citizens. They also argue that the collection of this information is a necessary part of the government's responsibility to protect the nation. Those who argue against information collection believe that it is a violation of privacy. They argue that the government has no right to collect information on the activities of its citizens, and that the collection of this information is a violation of the Constitution. They also argue that the collection of this information is a threat to the freedom of the United States.

